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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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22850	7590	02/07/2005	EXAMINER	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			AMINZAY, SHAIMA Q	
			ART UNIT	PAPER NUMBER
			2684	

DATE MAILED: 02/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/926,258

Applicant(s)

SATO ET AL.

Examiner

Shaima Q. Aminzay

Art Unit

2684

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 October 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8, 10, 12 and 14-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 12, 14, 15 and 20 is/are allowed.
- 6) ☒ Claim(s) 1-8, 10, and 16-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

The following office action is in response to Amendment, filed on September 27, 2004. Claims 1, 10, 12 and 15 amended, Claims 9, 11 and 13 are canceled. Claims 1-8, 10, 12 and 14-20 are pending.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action

(a) Patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made

1. Claims 1-6, and 8, 10, 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kojima (Kojima U. S. Patent number 6625442) in view of Rune (Rune U. S. Patent number 6434396).

Regarding claims 1 and 2, Kojima discloses a wireless base station which is connected to a plurality of wireless terminals and provides a service for the plurality of wireless terminals (see for example, Figures 1-2 (the wireless terminal 9 is one of the plurality of wireless terminals), column 1, lines 14-15, and lines 62-66, column 2, lines 62-67), comprising: a transmitter unit configured to

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transmit a first message (see for example, Figure 1, column 2, lines 62-67, column 4, lines 20-29, the base station (5) transmits the first message, accordingly, Kojima inherently teaches the transmitter unit); a receiver unit configured to receive a second message (see for example, Figure 1, column 2, lines 62-67, column 5, lines 1-2, accordingly, Kojima inherently teaches the receiver unit); a message processing unit configured to extracting [a multicast-related] control data from the second message received by the receiver unit (see for example, column 5, lines 1-7, the exchange and control unit (message processing and determination unit) configured to processes received information (message) and control data), and a determination unit determining whether the wireless base station provides the [multicasting] service based on the extracted [multicast-related] control data (see for example, column 5, lines 1-7, and lines 59-63, the exchange and control unit (message processing and determination unit) configured to determine the base station provides the service), and a message generating unit configured to generate the first message that is indicative of a determination result by the determination unit (see for example, column 5, lines 63-67 continued to column 6, lines 1-8), and sending the first message to the transmitter unit so that the transmitter unit transmits the first message (see for example, column 5, lines 63-67 continued to column 6, lines 1-8, the first message from the base station is being transferred and communication continued).

Kojima does not specifically teach the multicasting, and wherein [the wireless

base station determines autonomously whether the wireless base station provides the] multicasting [service for the plurality of wireless terminals]. However, Kojima discloses the wireless base station (5) and the control unit (7) determines whether the wireless base station provides special services to the plurality of wireless terminals (see for example, column 5, lines 39-44).

In related art, Rune discloses multicasting, and wherein [the wireless base station determines autonomously whether the wireless base station provides the] multicasting [service for the plurality of wireless terminals] (see for example, column 2, lines 23-30, and column 5, lines 48-51, multicasting and the base station multicasting services).

It would have been obvious to one of ordinary skill in the art at the time invention was made to combine Rune's wireless base station multicasting function with Kojima's wireless base station that connects to plurality of wireless terminals to provide a base station with multicast feature "to minimize the radio and network resources requirements for transmitting payload information from the stationary part of a cellular radio communications system to a particular mobile station, once a connection has been established with the mobile station" (Rune, column 1, lines 61-65).

Regarding claim 10, Kojima discloses a wireless base station which is connected to a control station and a plurality of wireless terminals and provides a [multicasting] service for the plurality of wireless terminals (see for example,

Figures 1-2 (the wireless terminal 9 is one of the plurality of wireless terminals), column 1, lines 14-15, and lines 62-66, column 2, lines 62-67), characterized in comprising: a transmitting means for transmitting a first state signal to the control station (see for example, Figure 1, column 4, lines 20-24, the base station 5 transmits the first state data to the controller station 7, accordingly, Kojima inherently teaches the transmitter unit), the first state signal indicating a [multicasting] service state of the wireless base station (see for example, column 4, lines 25-30, the first signal indicating service state of wireless base station 5), and a receiving means for receiving a second state signal from the control station (see for example, Figure 1, column 2, lines 62-67, accordingly, Kojima inherently teaches the receiver unit), the second state signal indicating a [multicasting] service state of a neighboring wireless base station (see for example, Figure 1, column 2, lines 50-67, column 5, lines 1-5, column 6, lines 64-67 continued to column 7, lines 1-10).

Kojima does not specifically teach the multicasting.

In related art, Rune discloses multicasting (see for example, column 2, lines 23-30, and column 5, lines 48-51, multicasting and the base station multicasting services).

It would have been obvious to one of ordinary skill in the art at the time invention was made to combine Rune's wireless base station multicasting function with Kojima's wireless base station that connects to plurality of wireless terminals to provide a base station with multicast feature "to minimize the radio

and network resources requirements for transmitting payload information from the stationary part of a cellular radio communications system to a particular mobile station, once a connection has been established with the mobile station” (Rune, column 1, lines 61-65).

Regarding claim 3, Kojima and Rune teach claim 1, and further Rune teaches the base station provides the multicasting service based on a service area (see for example, column 4, lines 57-59, and 62-65).

Regarding claim 4, Kojima and Rune teach claim 1, and further Kojima teaches the base station overlap service (see for example, Figure 1, service area 1 and 2 are overlapped).

Regarding claims 5, and 6, Kojima and Rune teach claim 1, and further Rune teaches the multicasting service is made based on a service state of a neighboring wireless base station (see for example, column 9, lines 3-6, and 16-29).

Regarding claim 8, Kojima and Rune teach claim 1, and further Kojima teaches a transmitting means for transmitting a first state signal to the control station (see for example, column 10, lines 28-29, “the base station 5 transmitted the first piece of private data information to the exchange and control station 7”),

and a receiving means for receiving a second state signal from the control station (see for example, column 3, lines 17-22), and the wireless base station provides services based on instructions received from the control station (see for example, column 3, lines 48-67 (see for example of the instructions contents), and column 4, lines 24-29).

Regarding claim 16, Kojima teaches selecting a wireless base station for a wireless terminal (see for example, column 1, lines 59-67 continued to column 2, lines 1-14), and the wireless terminal can receive information from a plurality of wireless base stations (see for example, column 1, lines 60-66), and the wireless terminal selects one of the plurality of wireless base stations so as to make the number of the wireless base stations that send the same information as small as possible (see for example, column 2, lines 50-55; data is being sent to a mobile terminal by one base station at a time such as 4 or 5).

However, Kojima does not specifically teach the multicasting feature.

Rune teaches the wireless base station provides the multicasting service for the plurality of wireless terminals (see for example, column 9, lines 3-6, and lines 21-29).

It would have been obvious to one of ordinary skill in the art at the time invention was made to combine Rune's wireless base station multicasting function with Kojima's wireless base station that connects to plurality of wireless terminals to provide a base station with multicast feature "to minimize the radio

and network resources requirements for transmitting payload information from the stationary part of a cellular radio communications system to a particular mobile station, once a connection has been established with the mobile station” (Rune, column 1, lines 61-65).

2. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kojima (Kojima U. S. Patent number 6625442) in view of Rune (Rune U. S. Patent number 6434396), and further in view of Sydon (Sydon et al. U. S. Patent number 6480721).

Regarding claim 7, Kojima and Rune teach claim 1. However, Kojima and Rune do not specifically teach base station and hop number.

Sydon teaches the base station and the hop number (see for example, column 4, lines 29-45).

It would have been obvious to one of ordinary skill in the art at the time invention was made to combine Sydon's wireless communication system hopping number scheme (column 1, lines 18-22) with Rune's multicasting system zone control and with Kojima's wireless base station that connects to plurality of wireless terminals to provide a base station with multicast feature and to provide a cordless telephone system with a frequency hopping scheme to ensure that the cordless system does not violate restrictions on the use of frequencies within the FCC restricted ISM (Industrial, Scientific and Medical) band (Sydon, column 1,

lines 64-67).

3. Claims 17, 18, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kojima (Kojima U. S. Patent number 6625442) in view of Maher (Maher et al. U. S. Patent number 6298058).

Regarding claims 17, 18, and 19 Kojima teaches a wireless base station which provides service for a wireless terminal (see for example, Figure 1, column 2, lines 39-40).

Regarding claim 17, Kojima discloses a wireless base station which provides [a multicasting] service for a wireless terminal (see for example, Figure 1, column 1, lines 9-11, column 2, lines 62-67, the base station 5 provides service to wireless terminal 9), characterized in comprising a counter in which a count value is incremented when a join message from the wireless terminal is received at the wireless base station (see for example, Figure 3, column 3, lines 23-47, the table (memory counter) count increases when a wireless terminal registers and the base station receives the identification message), and decremented when a leave message from the wireless terminal is received at the wireless base station (see for example, Figure 3, column 3, lines 23-47, the table (memory counter) count decreases when a wireless terminal no longer registers and leaves the base station coverage), wherein the wireless base station transmits the count

value of the counter to the wireless terminal (see for example, column 4, lines 38-43, the base station communicates with the wireless terminal using the table value (with counter) and informing the wireless terminal by received power level).

However, Kojima does not specifically disclose multicasting service.

In related art, Maher discloses the multicasting service in a wireless system (see for example, column 1, lines 6-8, lines 66-67 continued to column 2, lines 1-9).

It would have been obvious to one of ordinary skill in the art at the time invention was made to combine Maher's multicasting service in a wireless system with Kojima's wireless base station that connects to plurality of wireless terminals to provide a base station with multicast feature with dispatch service that can provide relatively more efficiently and less costly than in traditional wireless networks (Maher, column 1, lines 45-50).

Regarding claim 18, Kojima and Maher disclose claim 17, and further, Kojima teaches providing renewed count value of the counter to the wireless terminal each time the count value is renewed (see for example, column 5, lines 28-31, the update information is sent to the wireless terminal periodically).

Regarding claim 19, Kojima and Maher disclose claim 17, and further, Kojima teaches the wireless base station stops providing [the multicasting] service for the wireless terminal when the count value of the counter is equal to zero (see for

example, column 5, lines 59-62, when the service to wireless terminal is being limited according to the value of the table (counter)).

Allowable Subject Matter

4. Claims 12, 14, 15, and 20 are allowed.

Reasons for Allowance

5. The following is an examiner's statement of reason for allowance:

The prior art specifically Kojima, Rune, and Sydon are failed to render obviousness in combination or individually and failed to anticipate individually the following underlined limitations:

"A wireless terminal which receives a multicasting service provided by a wireless base station, characterized in comprising: an analysis unit determining the number of wireless terminals connected to a multicast group, based on a received control data; and a comparison unit determining whether the determined number is larger than the number of wireless terminals currently connected to the base station, wherein the wireless terminal selects one of connection of the wireless terminal to the base station and disconnection of the wireless terminal from the base station based on the result of the determination of the comparison unit, so as to make the number of wireless base stations that send identical multicasting information as small as possible" as disclosed in claim 20.

“A method of selecting a wireless base station for a wireless terminal, the wireless base station providing a multicasting service for the wireless terminal, comprising: detecting whether the wireless terminal can receive same multicasting information from a plurality of wireless base stations; determining a number of wireless terminals to which the same multicasting information is being transmitted by each of the plurality of wireless base stations, and selecting one of the plurality of wireless base stations based on the number of wireless terminals determined in the determining step, so as to make a number of the wireless base stations that transmit the same multicasting information as small as possible, wherein, when there is a first wireless base station that is connectable to the wireless terminal and transmitting the same multicasting information to the wireless terminal, the wireless terminal selects the first wireless base station and is connected to the first wireless base station.” as disclosed in claims 12, 14, and 15.

Response to Arguments

Note: This office action has been restructured for clarity. The same references have been used against the same limitations in the claims, therefor, this action is made final.

6. Applicant's arguments filed September 27, 2004 have been fully considered but they are not persuasive.
7. The applicant (last paragraphs page 9 continued to first paragraph page 10) argued regarding claims 1-6, 8, and 10 that the cited prior art (Kojima and Rune) "whether the wireless base station provides the multicast service, based on the multicast-related control data extracted from the message processing unit", "determining" feature. Examiner respectfully disagrees. As discussed in the rejected above (claims 1-6, 8, and 10) Kojima discloses "a wireless base station which is connected to a plurality of wireless terminals and provides a service for the plurality of wireless terminals (see for example, Figures 1-2 (the wireless terminal 9 is one of the plurality of wireless terminals), column 1, lines 14-15, and lines 62-66, column 2, lines 62-67), comprising: a transmitter unit configured to transmit a first message (see for example, Figure 1, column 2, lines 62-67, column 4, lines 20-29, the base station (5) transmits the first message, accordingly, Kojima inherently teaches the transmitter unit); a receiver unit configured to receive a second message (see for example, Figure 1, column 2, lines 62-67, column 5, lines 1-2, accordingly, Kojima inherently teaches the receiver unit); a message processing unit configured to extracting [a multicast-related] control data from the second message received by the receiver unit (see for example, column 5, lines 1-7, the exchange and control unit (message processing and determination unit) configured to processes received information

(message) and control data), and a determination unit determining whether the wireless base station provides the [multicasting] service based on the extracted [multicast-related] control data (see for example, column 5, lines 1-7, and lines 59-63, the exchange and control unit (message processing and determination unit) configured to determine the base station provides the service), and a message generating unit configured to generate the first message that is indicative of a determination result by the determination unit (see for example, column 5, lines 63-67 continued to column 6, lines 1-8), and sending the first message to the transmitter unit so that the transmitter unit transmits the first message (see for example, column 5, lines 63-67 continued to column 6, lines 1-8, the first message from the base station is being transferred and communication continued), Kojima does not specifically teach the multicasting, and wherein [the wireless base station determines autonomously whether the wireless base station provides the] multicasting [service for the plurality of wireless terminals], however, Kojima discloses the wireless base station (5) and the control unit (7) determines whether the wireless base station provides special services to the plurality of wireless terminals (see for example, column 5, lines 39-44), In related art, Rune discloses multicasting, and wherein [the wireless base station determines autonomously whether the wireless base station provides the] multicasting [service for the plurality of wireless terminals] (see for example, column 2, lines 23-30, and column 5, lines 48-51, multicasting and the base station multicasting services)".

The applicant (last paragraphs page 10 continued to first paragraph page 11) argued regarding claim 16 that the cited prior art (Kojima and Rune) "when the wireless terminal selects one of a plurality of wireless base stations so as to make the number of the wireless base stations that send identical multicasting information as small as possible" Examiner respectfully disagrees. As discussed in the rejected above (claim 16) Kojima teaches the wireless terminal selects one of the plurality of wireless base stations so as to make the number of the wireless base stations that send the same information as small as possible, Kojima does not specifically teach the multicasting, in related art, Rune discloses multicasting service.

Therefor, Examiner believes the claims are broad enough to combine Rune's wireless base station multicasting function and with Kojima's wireless base station that connects to plurality of wireless terminals to provide a base station with multicast feature.

The applicant (last paragraphs page 11 continued to first paragraph page 12) argued regarding claim 8 that the cited prior art (Sydon) does not disclose the claimed feature "hop number". Examiner respectfully disagrees. As discussed in rejection above (claims 7 and 8), claim 8 does not contain the feature "hop number", the "hop number" is part of claim 7, and Sydon teaches "hop number".

Therefor, Examiner believes the claims are broad enough to combine Sydon's

wireless communication system hopping number scheme with Rune's wireless base station multicasting function and with Kojima's wireless base station that connects to plurality of wireless terminals to provide a base station with multicast feature with frequency hopping scheme.

The applicant's argued features in claim 17 that a wireless base station which provides a multicasting service for a wireless terminal comprising a counter in which a count value is incremented when a join message from the wireless terminal is received at the wireless base station, and decremented when a leave message from the wireless terminal is received at the wireless base station and transmits the count value of the counter to the wireless terminal does not read upon Kojima in view of Maher. Examiner respectfully disagrees. As discussed in the rejected above (claim 17) Kojima discloses a wireless base station which provides service for a wireless terminal and a table (memory counter) count increases when a wireless terminal registers and the base station receives the identification message, and the table (memory counter) count decreases when a wireless terminal no longer registers and leaves the base station coverage, and the base station communicates with the wireless terminal using the table value (with counter) and informing the wireless terminal by received power level, however, Kojima does not specifically disclose the multicast service, In related art, Maher discloses the multicasting service in a wireless system.

Therefor, Examiner believes the claims are broad enough to combine Maher's

multicasting service in a wireless system with Kojima's wireless base station that connects to plurality of wireless terminals.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

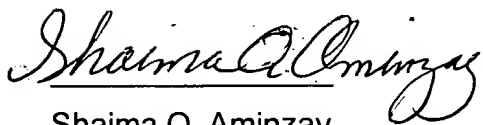
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

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Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shaima Q. Aminzay whose telephone number is 703-305-8723. The examiner can normally be reached on 7:00 AM -5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung can be reached on 703-308-7745. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Shaima Q. Aminzay

(Examiner)

NICK CORSARO
PRIMARY EXAMINER_____
Nay Maung

(SPE)

Art Unit 2684

January 28, 2005